In the Clear

The Weather Newsletter for interior central California



National Weather Service San Joaquin Valley

Hanford, CA Spring/Summer 2013 Edition

Letter from the Editor

Brian Ochs, Spotter Newsletter Editor

I would like to update our readers on the progress of moving our newsletter to a blog. Starting in the upcoming summer or fall, our spotter newsletter will be posted in a blog format, either on Google or Facebook.

What this means is our office will post content, including articles, graphics, and even occasional puzzles onto a new website. We will provide more frequent updates regarding recent Skywarn, weather, outreach events, and installation of new weather stations.

This change will be announced on our website at www.weather.gov/hanford and social media, including our Facebook and Twitter sites. We plan to put a headline at the top our homepage.

We will also continue to provide updates on our Skywarn page.

Thank you for your patronage of our Skywarn page and spotter newsletters!

Sincerely,

Brian Ochs
Skywarn Storm Spotter Newsletter Editor
NWS Forecast Office San Joaquin Valley, CA

Inside this Issue:

SKYWARN
WX6HNX

Record Dryness Experienced Across Northern California So Far in 2013

Paul Iñiguez, Science and Operations Officer

Nearly all of California, including nearly all of the Sierra Nevada range, has had a significant reduction in rain and snow so far this year. In fact, for much of central and northern California this is the driest start to a year on record (since 1895, see Fig. 1 below). This is in contrast to how the winter of 2012-2013 began, with several very wet storms lashing the West Coast and rainfall being well above average across California (see Fig. 2 on the next page). It was recently reported that as of May 1, the Sierra snowpack as a whole was 17% of normal, while the southern portion of the Sierra was about 25% of normal (see chart on page 4).

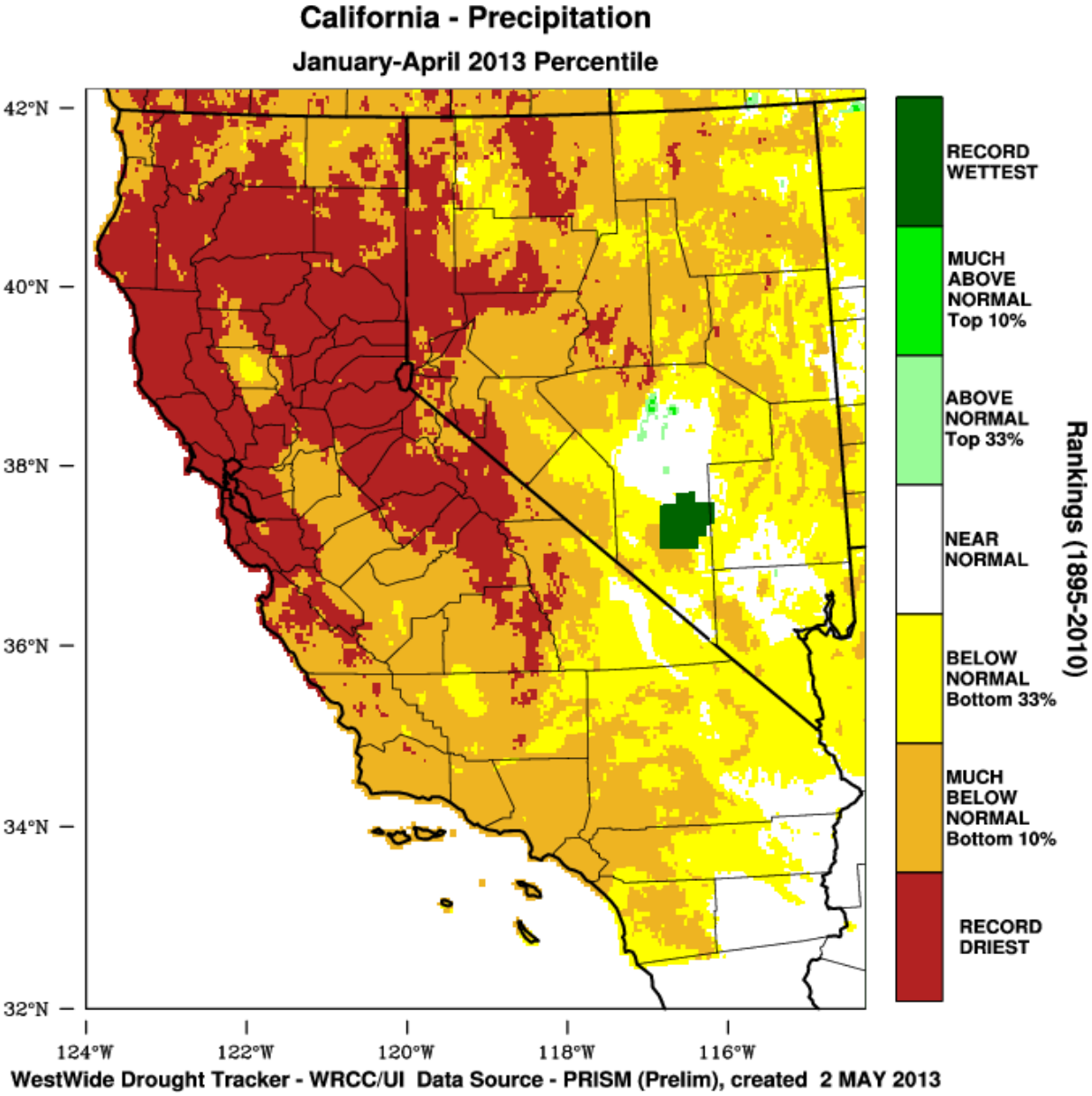

Figure 1: Rainfall Anomalies (Percentile) during January-April 2013 across California

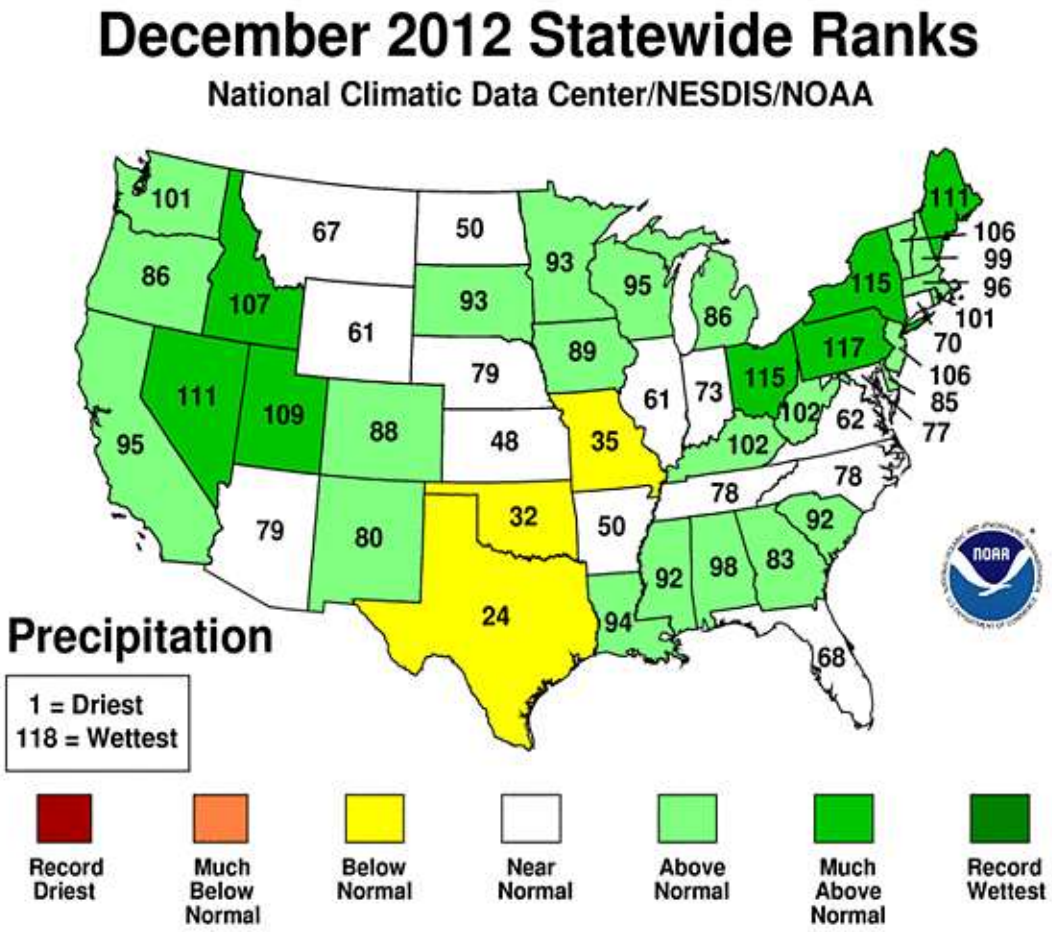

Figure 2: Precipitation Ranks by State during December 2012

NWS San Joaquin Valley is on Facebook, Twitter, and YouTube!

Check out the Facebook (US National Weather Service Hanford California) and Twitter (@NWSHanford) pages for the Hanford, CA forecast office. Links are below:

http://www.facebook.com/US.NationalWeatherService/Hanford.gov

https://twitter.com/NWSHanford

http://www.wrh.noaa.gov/wfoexit.php?wfo=hnx&url=http://www.youtube.com/NWSHanford

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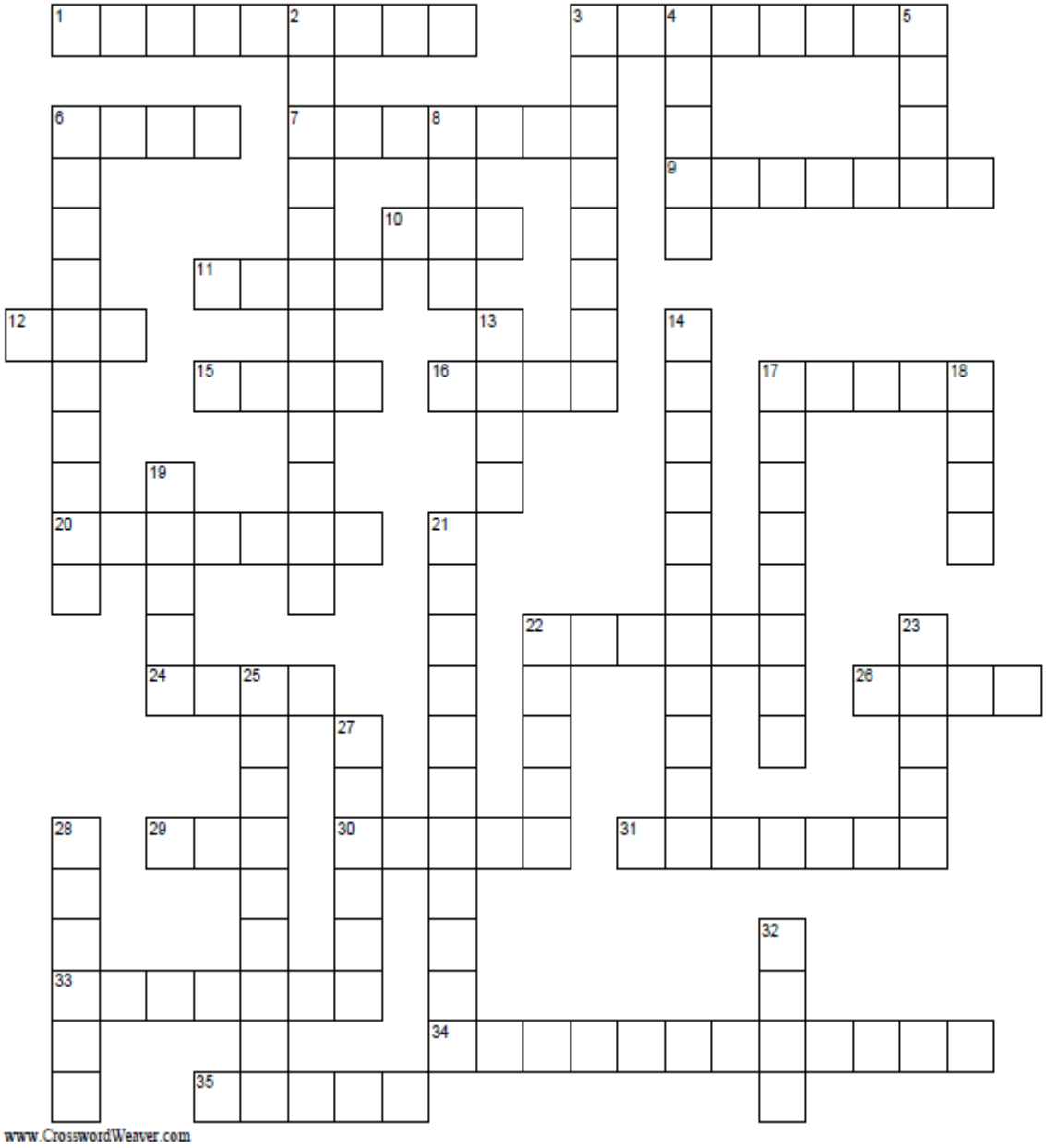
Crossword Puzzle

Kevin Durfee, Meteorologist

Do You Know Your Meteorology?



(Clues are on next page).

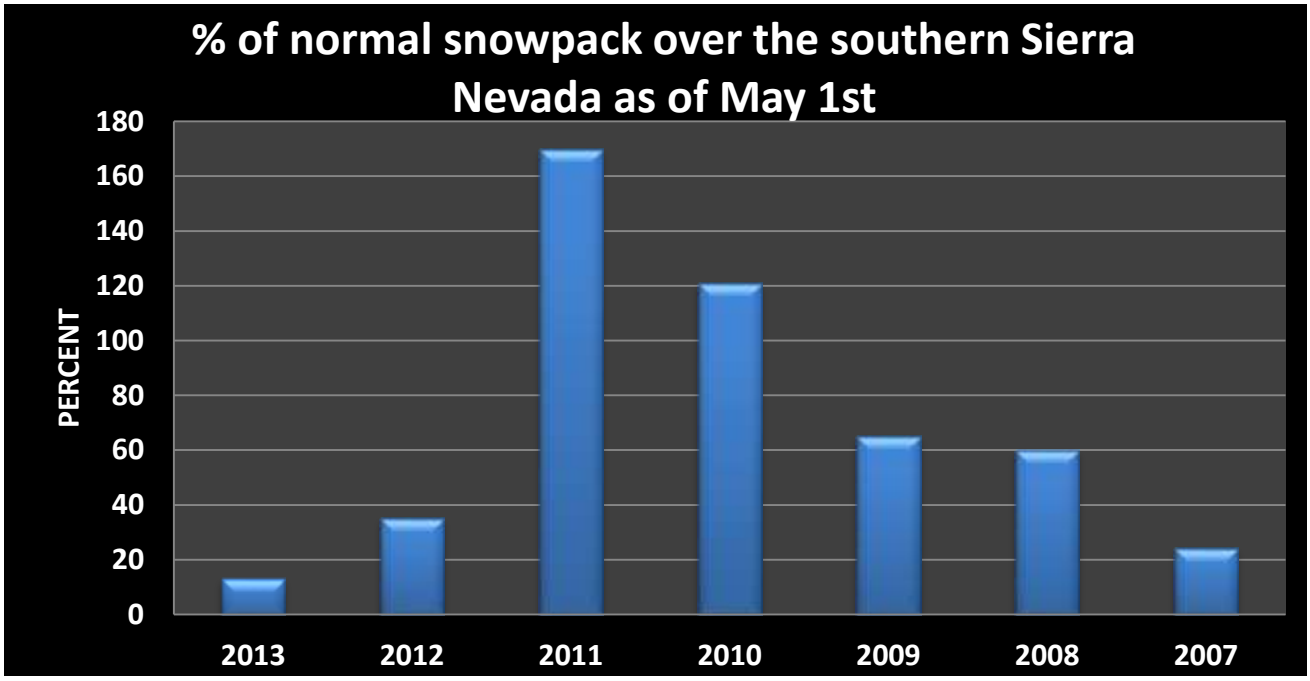
ACROSS

1 a severe thunderstorm with detectable rotation
3 of or pertaining to weather on a broad scale
6 describes the water droplets within fog
7 a rainy season often associated with tropical moisture in the Summer
9 a funnel cloud that reaches the ground
10 a cloud that reaches the ground and is very common during the Winter in the San Joaquin Valley.
11 a mixture of fog and smoke
12 the opposite of cold
15 condensed water falling from a cloud
16 dust or smoke particles suspended in the atmosphere
17 forms when air is lifted and cooled and the water vapor in the air condenses
20 a flat, gray, rather uniform type of cloud usually found at or below 3000 feet above the ground.
22 a sudden windstorm, often with heavy rain
24 pellets of ice that fall from a thunderstorm
26 a circle of light around the moon or sun
29 opposite of windward
30 prevents damaging UV light from reaching the Earth's surface
31 the state of the atmosphere which is forecast daily by meteorologists
33 a temperature scale in which water freezes at 0 degrees
34 the process that describes the very beginning stages of a storm
35 a measure of wind speed (nautical)

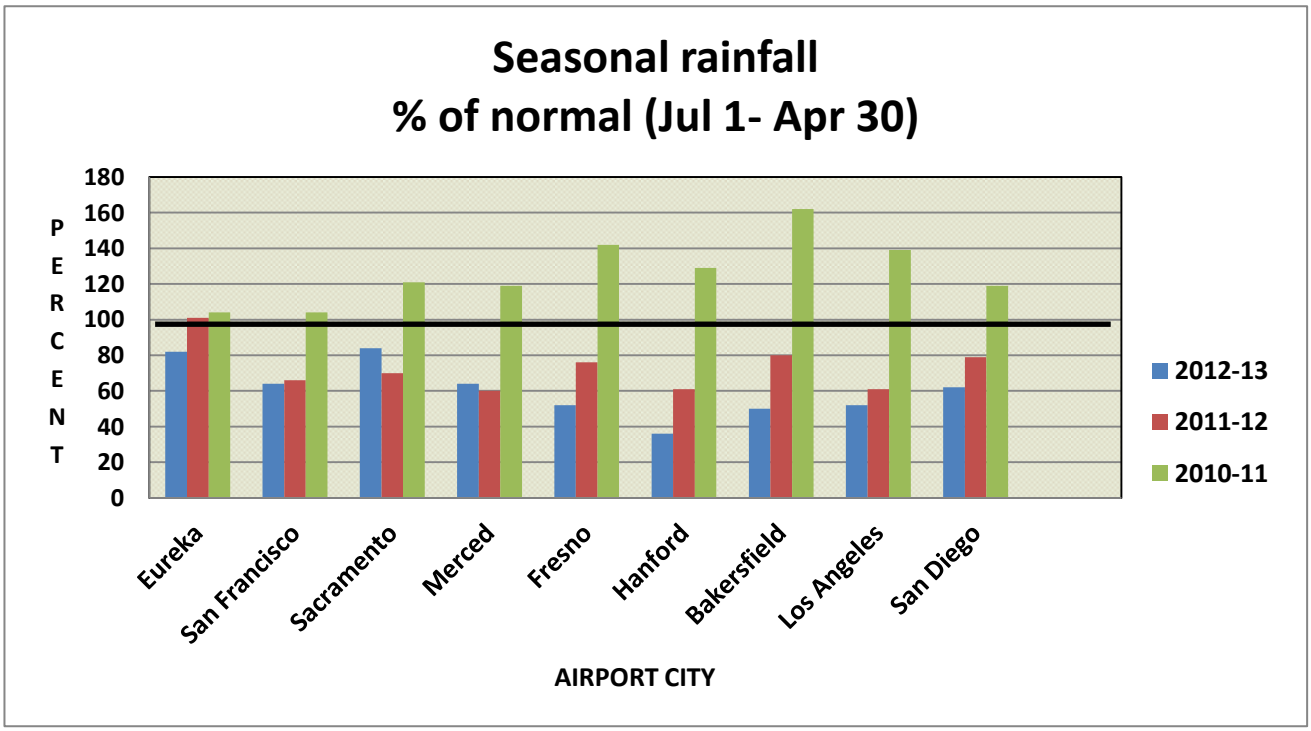
DOWN

2 a type of cloud only found in a mature thunderstorm
3 there's plenty of it on a clear day
4 wind direction from 360 degrees.
5 the opposite of hot
6 a very powerful downdraft from a severe thunderstorm
8 water vapor in the form of falling flakes or ice crystals
13 a perturbation in the atmosphere or in the water
14 a measure of how cold or warm the air is
17 a gravitational force caused by the Earth's rotation
18 small dry particles suspended in the atmosphere
19 a diagram showing relationships between two or more variable quantities
21 a horizontal wind which blows in a straight path at high altitudes above the Earth's friction layer
22 a cloud of tiny particles rising from something burning
23 composes 75% of the Earth's surface
25 when a layer of warmer air rests atop a layer of relatively cool air
27 boundaries between two different air masses
28 hanging, tapered rod of ice formed when dripping water freezes
32 air moving through the atmosphere, usually expressed in mph

How low is our Sierra Nevada snowpack this year?



How low is the rainfall across CA this year?



(The charts above were provided by Kevin Durfee).

Runnin' the Numbers		Fresno			Bakersfield		
		NOV '12	DEC '12	JAN'13	NOV '12	DEC '12	JAN'13
TEMPERATURE (^{O}F)	Average Maximum	68.8	57.9	58.0	70.1	59.3	58.8
	Average Monthly	58.3	50.8	47.1	58.3	50.2	46.7
	Departure from Normal	4.0	4.3	0.5	3.2	2.4	-1.1
	Average Minimum	47.7	43.7	36.2	46.4	41.1	34.7
	Maximum	85	66	68	86	73	74
	Date(s)	6th	17th	23rd	6th	1st	22nd
	Minimum	37	32	28	35	28	25
	Date(s)	11th	20th	14th	12th, 13th	20th	13th
	Number of Days Max >=90	0	0	0	0	0	0
	Number of days Min <=32	0	1	9	0	4	14
PRECIPITATION (In.)	Total	1.11	2.03	0.58	0.10	0.65	0.83
	Departure from Normal	0.04	0.26	-1.61	-0.54	-0.37	-0.33
	Greatest in 24 hrs	0.62	0.62	0.47	0.06	0.25	0.29
	Date(s)	Nov 30th – Dec 1st	Nov 30th – Dec 1st	6th	16th-17th	12th-13th	25th–26th
	Number of days w/precip.	10	15	8	9	16	8
	Seasonal Total	1.36	3.39	3.97	0.12	0.77	1.60
	Departure from Normal	-0.51	-0.25	-1.86	-0.82	-1.19	-1.52
	Compared to Normal (%)	72.7	93.1	68.1	12.8	39.3	51.3
WIND (mph)	Peak Speed	28	37	38	24	29	33
	Direction	NW	NW	NW	NW	N	N
	Date(s)	8th	18th	9th	10th	18th	10th
PRESS (in.)	Highest	30.40	30.35	30.52	30.40	30.33	30.49
	Date	11th	19th	15th	12th	19th	15th
	Lowest	29.85	29.83	29.95	29.85	29.79	29.93
	Date	8th	13th	26th	8th	12th	9th

Runnin' the Numbers		Fresno			Bakersfield		
		FEB '13	MAR '13	APR'13	FEB '13	MAR '13	APR'13
TEMPERATURE (^{O}F)	Average Maximum	62.8	74.5	81.3	63.8	73.3	80.3
	Average Monthly	51.0	62.1	67.6	51.3	60.5	66.7
	Departure from Normal	-0.5	5.5	5.6	-1.3	2.9	4.1
	Average Minimum	39.3	49.6	53.8	38.8	47.8	53.2
	Maximum	73	85	95	76	86	93
	Date(s)	15th, 16th	13th, 30th	29th	15th	30th	28th, 29th
	Minimum	36	40	42	32	39	39
	Date(s)	11th, 24th	23rd	17th	10th	10th	17th
	Number of days Max >=90	0	0	5	0	0	4
	Number of days Min <=32	0	0	0	1	0	0
PRECIPITATION (In.)	Total	0.89	0.65	0.09	0.60	0.83	0.05
	Departure from Normal	-1.14	-1.38	-0.86	-0.64	-0.38	-0.47
	Greatest in 24 hrs	0.47	0.32	0.06	0.52	0.79	0.05
	Date(s)	19th-20th	31st	4th	19th	8th	8th
	Number of days w/precip.	4	6	2	4	9	1
	Seasonal Total	4.86	5.51	5.60	2.22	3.05	3.10
	Departure from Normal	-3.02	-4.40	-5.26	-2.26	-2.64	-3.11
	Compared to Normal (%)	61.2	55.6	51.6	49.6	53.6	49.9
WIND (mph)	Peak Speed	29	31	39	36	29	43
	Direction	NW	SW	W	NW	N	NW
	Date(s)	18th	31st	8th	19th	3rd	15th
PRESS (in.)	Highest	30.44	30.43	M	30.43	30.42	30.26
	Date	28th	1st	M	28th	1st	18th
	Lowest	29.72	29.77	29.69	29.70	29.78	29.68
	Date	19th	8th	29th	19th	8th	30th

What to Expect for the Upcoming Fire Season

Brian Ochs, Meteorologist

High fire season for California began on May 6th. Usually, this season lasts from late May until October and often into November. However, this season began early due to below average rainfall and above average temperatures through much of the winter and this spring so far. This is coordinated with the National Weather Service offices, as well as the GACCs (Geographic Area Coordination Centers) that are under NIFC (National Interagency Fire Center), which serve California, as well as federal and state partners involved in firefighting and wildfire prevention.

Basically, our high fire season is expected to be above normal through August 2013. Coastal mountains in much of southern California are expected to be above normal in terms of fire activity by July. In addition, much of the western United States can expect above normal fire activity this summer. The GACC that serves southern and part of central California (located in Riverside) has provided the following outlook graphic:

This graphic basically takes below normal Sierra Nevada thunderstorm activity and dry fuels (brush, trees, grass, etc.) due to prior weather conditions into account. Fuel dryness in many locations is similar to what typically occurs during August and September. Even though below normal thunderstorm activity is expected over the Sierra Nevada, this does not mean there will not be any thunderstorms in this area. Any thunderstorms that develop have the potential to produce frequent cloud to ground lightning that can trigger a wildfire. Also, any storm cell that develops will produce gusty and erratic winds which can help spread a wildfire.

Another scenario that can increase the potential for large wildfires is low relative humidity combined with well above normal temperatures and strong, gusty winds. This occurred during last week (around May 1st) in much of Kern County, including around Bakersfield where relative humidity dropped as low as two percent with winds gusting to 35 mph and a high temperature of 95 degrees. The humidity was below 10 percent in many locations throughout Kern County for about two days, including the mountain and desert areas (i.e., Antelope Valley).

An active fire season is anticipated through at least this summer for much of California. Here are some wildfire safety tips to keep in mind (provided by the Federal Emergency Management Agency, or FEMA):

- Contact your local fire department, health department, or forestry office for information on fire laws.
- Make sure that fire vehicles can get to your home. Clearly mark all driveway entrances and display your name and address.
- Report hazardous conditions that could cause a wildfire.
- Teach children about fire safety. Keep matches out of their reach.
- Post fire emergency telephone numbers.
- Ensure adequate accessibility by large fire vehicles to your property.
- Plan several escape routes away from your home - by car and by foot.
- Talk to your neighbors about wildfire safety. Plan how the neighborhood could work together after a wildfire. Make a list of your neighbors' skills such as medical or technical. Consider how you could help neighbors who have special needs such as elderly or disabled persons. Make plans to take care of children who may be on their own if parents can't get home.

Attention Motorists!

Need to know the latest road reports when you are traveling? CalTrans has set up a special number to find out the status of roads.

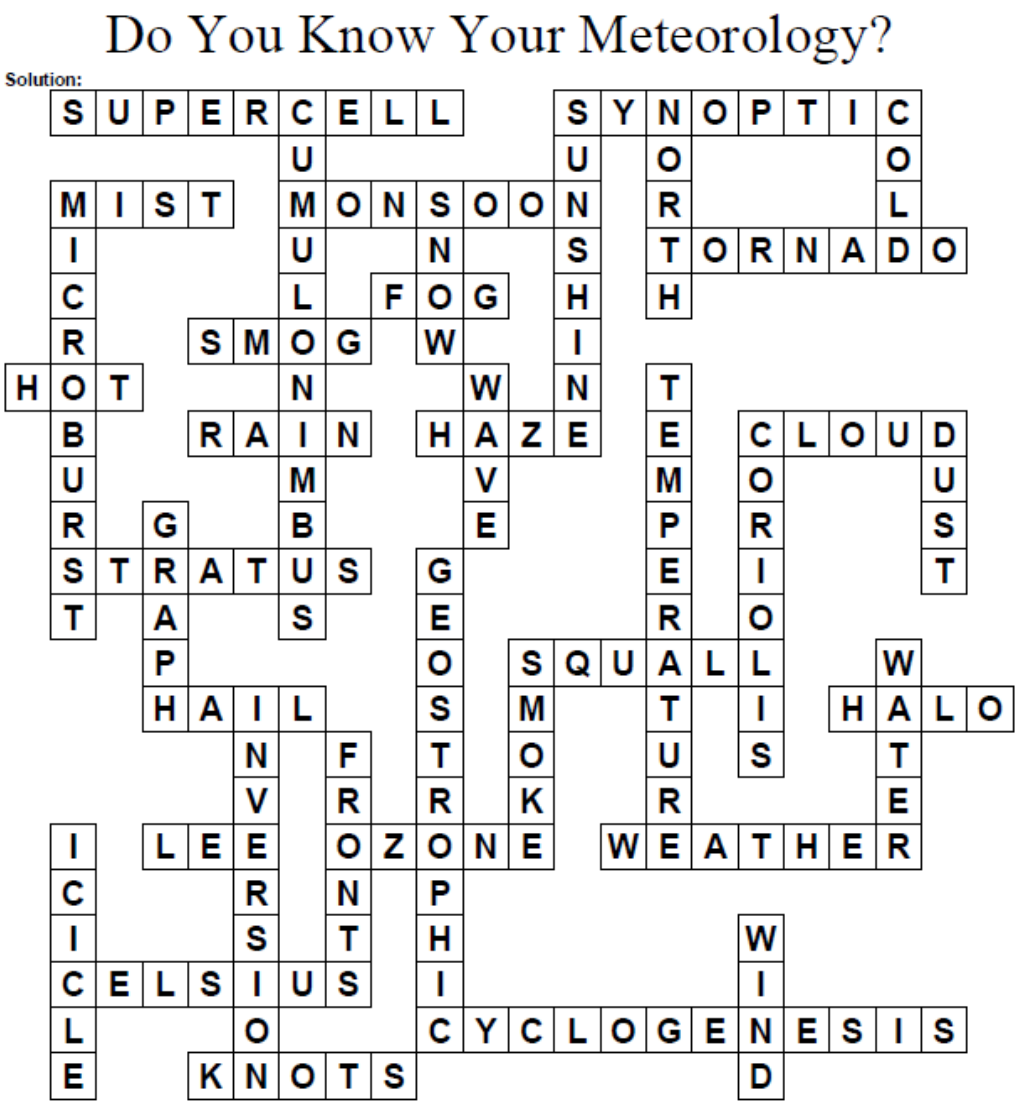
Dial 1-800-427-ROAD or check out http://www.dot.ca.gov/cgi-bin/roads.cgi Just enter the highway number (example, push the 5 button or touchpad to check Interstate 5).

Climate Summaries through April 2013 are available!

Please use the following link if you would like the monthly climate summaries for the central California interior: http://www.wrh.noaa.gov/hnx/clisum.php

Then click on the link for the month you are interested in (earliest date is January 2006).

Answers to Weather Slogan Puzzle (from page 5):



In The Clear is a newsletter issued by the

San Joaquin Valley Weather Forecast Office
900 Foggy Bottom Road
Hanford, CA 93230-5236